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ABSTRACT

Presented are a description and evaluation report of the Comprehensive Support Services Program (CSSP), a regional effort by seven New York school districts to identify, evaluate, and provide supplemental educational support for learning disabled students with special educational needs through a multi-disciplinary team in each school. Summarized are the results of an evaluation for the 1975-76 school year based on four assessment tools -- surveys of school administrators, classroom teachers whose students received support, and parents of students served, and preservice and postservice testing of 1,129 students (grades 1-12) with learning problems using the Peabody Individual Achievement Test. It is noted that the major conclusions from comparisons of test results are that (1) CCSP students gained significantly greater than the national norm in math, work recognition, and comprehension; (2) gains were greater at eight grade and below than at the higher grades; (3) no differences were attributable to service method (direct of indirect); (4) gains in word recognition and comprehension may have been attributable to the intervention measure; and (5) second year gains equaled or exceeded first year gains. Included are such recommendations as the provision of consistent screening to identify students with learning problems, preparation of individual educational plans, and increased focus on teacher training. Appended are the questionnaires and interview forms used with administrators, teachers, and parents. (TM)

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COMPREHENSIVE SUPPORT SERVICES PROGRAM

FOR SERVING

PUPILS WITH SPECIAL EDUCATIONAL NEEDS

1975-76

Report and Evaluation

by

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SUMMARY

This report describes the regional program of seven school districts in New York State: The Comprehensive Support Services Program.

This program was designed to draw upon a wide variety of available educational services and to coordinate and expand these efforts through a support team in each school which would be led by a learning specialist, a support teacher. The focus of the support program was in early identification of students with special educational needs, a detailed evaluation of learning needs, and provision of educational interventions through direct student support and through teacher consultation. The goal of the program was to maintain students in regular classes by tailoring the curriculum to meet individual needs and by providing teachers with new tools for dealing effectively with learning problems.

This study proposed to assess the impact of the program upon student achievement. This report describes the CSSP as a vehicle for providing supplemental educational services to students with special educational needs. It summarizes the results of an evaluation based on four assessment tools: (1) surveys of school administrators, (2) classroom teachers whose students received support, (3) parents of students served, and (4) preservice and postservice tests.

The Peabody Individual Achievement Test subtests of math, word recognition, comprehension, and spelling were administered to 1129 students who had been identified as having learning problems. Posttest scores (at each grade and each test) were compared with pretest scores and with posttest scores (standard scores) to be expected if the class rank were to be maintained relative to the national norm. Gains recorded for each grade and on each subtest were compared with norm gains. For students in the program a second year, gains the initial year were compared with second year gains.

Gains attributed to four intervention methods were compared. Gains made by students receiving direct service were compared with gains made by students who received only indirect service through support work with the classroom teacher.

The major conclusions from test results are that: (1) students gained significantly greater than the national norm in math, word recognition, and comprehension; (2) greater gains were recorded at eighth grade and below; (3) no differences were attributable to service (i.e. direct vs. indirect); (4) gains in word recognition and comprehension may be attributable to the intervention measure; (5) second year gains equal or exceed first year gains.

FOREWORD

Third party evaluation was employed by the participating school districts and the Tompkins-Seneca-Tioga BOCES to assess the impact of the Comprehensive Support Services Program on student achievement. This program is a regional attempt to provide for pupils with special educational needs.

An earlier evaluation described the procedures and the support services and measured program impact on student achievement in 1974-75. Interest in the 1974-75 evaluation led to this study which examined student performances in a second year and assessed program impact as measured by teachers, parents, and administrators.

This report, **Comprehensive Support Services Program: A Second Year Evaluation**, is an outgrowth of the evaluation efforts performed by the National Public Services Research Institute under contract to the Tompkins-Seneca-Tioga BOCES. The evaluation was directed by Dr. Sarah H. Ashburn.

ACKNOWLEDGMENTS

The author of this report is indebted to many persons for their suggestions and assistance. Most deserving of special recognition are the support teachers in each school district whose participation in the testing and data collection required extensive efforts beyond the usual job commitments. Ms. Dorothy Euvrard and Ms. Mary Lou Capolongo deserve special thanks for their many hours of careful data collection and preparation. Mr. Bernard Preston and Mrs. Marie Davies were essential to the printing of this publication.

Special recognition is given to the BOCES administrative staff whose encouragement and endorsement made significant impact upon the support program as well as this evaluation. Through the leadership of Mr. Edward Witko and Dr. Joseph Farinola, school administrators of the seven school districts and the Title III Regional Team, this evaluation effort was developed into a viable assessment tool.

THE COMPREHENSIVE SUPPORT SERVICES PROGRAM

INTRODUCTION

The Comprehensive Support Services Program (CSSP) is a regional effort by seven school districts to provide direct and indirect assistance to students with special educational needs through a multi-disciplinary team in each school. A support teacher in each school coordinates the efforts of on-staff specialists who comprise the school team (psychologist, social worker, nurse teacher, speech therapist, reading specialist, and school administrators), provides educational assessments, and designs educational plans for classroom and resource room implementation.

In 1975-76, seven school districts provided pupils with special educational needs through the CSSP – Dryden School District, Groton School District, Ithaca City School District, Lansing School District, Newfield School District, South Seneca School District, and Trumansburg School District. Newfield School District was the only new addition to the CSSP in 1975-76. A detailed description of the support program in each school district may be found in Volume 1: *The CSSP: 1974-75 Description and Evaluation.* A description of the support program in Newfield is found on page 5.

This report was developed in conjunction with the second annual evaluation of the Comprehensive Support Services Program. The data analyzed were Peabody Individual Achievement Tests administered to students receiving individual support from the CSSP (1129 students in 1975-76), questionnaires administered to building principals, interviews from a representative sample of parents whose children have received support services, and questionnaires completed by classroom teachers whose students received support services.

FINANCIAL SUPPORT

The 1975-76 Comprehensive Support Services Program was funded through joint efforts of the participating districts and the New York State Education Department. Through BOCES' cooperative service application, a portion of the total cost was state aidable.

Total costs for the CSSP in 1975-76 were $394,725. These costs included salary expenses of support teachers, paraprofessional aides, consultants and clerical assistance. Costs for related services—resource room staff, reading teachers, school psychologists, speech therapists, nurse teachers, and social workers were borne by the local districts as part of their regular budgets. Expenses for instructional materials and testing equipment were also borne by local schools.

The total cost of $394,725 provided compensatory educational services to many more than the 1129 students who were tested in this study. Many students were seen in classroom screening which resulted in new educational programs. All kindergarten children were screened as were all students at transition grades of six and nine.

In 1974-75, 2274 students were identified who received services from the CSSP. No formal measure of total students served was attempted in this study. However, contacts with the schools suggest an increase in students with a significant number of second year students requiring reduced time for monitoring of education provisions.

PROGRAM OBJECTIVES

The overall goal of the Comprehensive Support Services Program is to provide schools with a viable means for delivering services to students with special educational needs. In pursuit of this goal, several specific objectives were identified:

- Emphasis upon early identification of learning difficulties through kindergarten screening.
- To identify all students whose academic performances are two or more years below their grade levels in basic skills.
- To provide a referral avenue so that teachers may receive assistance in maintaining, in the regular classroom, students with special educational needs.
- To provide classroom teachers with ongoing training in remedial and enrichment materials and instructional techniques.
- To coordinate the educational services of specialists through the use of a multi-disciplinary team approach.
- To reduce the number of students whose scores on statewide achievement tests are below the minimum competence level.

EVALUATION PURPOSES

This study proposed to evaluate the Comprehensive Support Services Program in seven school districts. Specifically, it was intended to identify provisions made for students with special learning needs, to measure the educational progress recorded by students receiving support services, to assess the second year gains of students studied in 1974-75, to compare efforts of direct student support and indirect (through teacher or other intermediary) student support. In addition to an assessment of the academic gains of students, this study proposed to survey school administrators, parents and teachers to determine their views of the program's effectiveness.

RESEARCH METHODOLOGY

The purpose of evaluation is to provide knowledge which may be used for educational decisions. The field setting of public schools produces numerous variables which make it difficult to ensure that evaluation information is not biased. Student differences may include ability, sex, and background factors including education and income. Other variables may include teacher differences in preparation, attitude or performance. School facilities and administration may also affect student change. It was not possible to control these potential sources of bias in this study. Neither was such control desirable. The key factor was an assessment of an ongoing program, not the design of an experiment appropriate for a laboratory.

A prior study (Ashburn, 1975) attempted to identify and quantify the characteristics of the CSSP. This study recorded changes observed in the CSSP in 1975-76, described the support services in the school district new to the program (Newfield), examined student achievement as measured by the PIAT, and interpreted the results of three survey instruments which recorded program assessments by teachers, parents, and school administrators.

Primary data were comprised of test scores of the PIAT, responses to the teacher questionnaire, school administrator questionnaires, and parent interviews. Criteria for admissibility of the data are discussed in a later section along with summary statistics and results.

Students taking a test for a second time usually do better (Campbell and Stanley, 1966). Since, presumably, children in the norm groups took the test only once, this spurious increment could be present in the posttest scores of children in the support program and could lead to erroneous conclusions regarding program impact.

A rule of thumb estimate used for the size of the practice effect was 1/10 of 1 standard deviation. This was expected to account for the same form being used for pre and posttesting. Gains were expected to exceed this estimate before actual student change was considered.

GENERAL APPROACH

Each survey instrument was designed for a specific population. Methods for gathering the data and requirements relative to minimum acceptable return rates were identified at the onset of the research.

Questionnaires were planned for teacher, parent and administrator responses. Each school administrator in 25 buildings was given a questionnaire at a March regional meeting at BOCES. Each was asked to complete the questionnaire and return it, with no mention of name, to the Area Educational Services Center. Twenty-four school administrator questionnaires were returned, a return rate of 96%, whose students received assistance from the CSSP were also surveyed (May 1976). A random sample of 25% of the involved teachers was planned originally; however, school officials offered assistance in collecting a greater number of questionnaires to enable more teachers' input into the assessment. Fifty percent of the involved secondary level teachers (grades 7-12) were selected at random in each school to receive questionnaires. All involved elementary school teachers were surveyed, since many small schools had a faculty of 8 or smaller. A total of 268 teacher questionnaires were distributed with a cover letter asking for anonymous completion and return to the Area Educational Services Center. Two hundred three responses (76%) were received.

The original plan required mailout surveys to parents whose children received support services. However, initial contacts with support staff suggested that (1) many parents worked with only one person rather than a multidisciplinary support team and would be alarmed at what appeared to be new services to their youngsters, and (2) parents were unaccustomed to receiving mailout evaluation questionnaires. In view of these potential problems, a format was designed to guide interviews with parents which would be conducted by the support teacher or the support team member who had worked most closely with the parents. To minimize the number of interviews required, a random sample of 10% was selected from parents who had more than one contact with a support team. This sample (57) yielded 32 interviews or 56% of the sample. Working parents and family moves were primary reasons for the low return. Because of the low percentage of returns, these results should be received with caution.

The PIAT was administered to students upon their referral to the CSSP. Tests were administered by the support teachers or support staff members trained by the support teacher in administering and scoring the tests. Eight hundred twenty-four students were tested in the fall of 1974 and posttested with the same instrument in the spring of 1975. Students entering the program in the spring or fall of 1975 were tested upon entry. All students were posttested in the spring of 1976 (April-May).

Two types of scores were used to examine student performance: grade equivalent and standard scores. Grade equivalent scores were used by the participating schools in reporting their results. They are widely understood by schools and community as representatives of the median score for pupils at a specific grade level. They indicate the level at which students are achieving scholastically when compared with a nationally representative group of students in the mainstream of education throughout the country.

However, severe limitations exist in interpreting grade equivalent scores. Since they do not comprise an equal interval scale (grade 2-3-4 do not necessarily represent arithmetically comparable gains), use over an extended period such as this second year study may provide a distorted view of the impact of the support program. However, as an indicator of student performance at the pretest administration and posttest administration, grade equivalent scores are useful. They indicate the grade equivalent of average students whose scores were the same as the tested group. For example, if a fourth grade student scores a second grade in spelling, he scored as well as the average second grader taking the test in the national norm group. From these figures we can determine the approximate academic level of functioning and can envision gains when posttest scores are compared with the number of months of treatment.

Use of grade equivalent scores in this study compared the posttest scores (in each grade and on each subtest) with the posttest score expected if the students gained one year in score over a one year period of time. Tests were given during the spring of '75 and '76, the same time frame as the normative data for test standardization purposes. These test dates were considered to strengthen the confidence which may be placed in the results. Since students were originally identified by their academic deficits, a posttest recording gains greater than the national norm suggests program success.

Standard scores comprise the second type of score used in this study. Statistical tests assessing effectiveness of the program in affecting change rely on these data. A standard score describes how far from the average mean of his grade level a student scored. The unit which measures distance below or above the average is a standard deviation. A standard score shows how many standard deviations away from the mean a student scores. On the PIAT, the average standard score is 100 and the standard deviation 15. Therefore, the average at each grade and on each test is 100. One standard deviation below average would be 85. If students who received support services scored a mean standard score of 85 on pretest, they would have to gain at the national norm group rate of gain to posttest at 85. Only programs of demonstrated effectiveness could be expected to show significant gains in standard scores.

Analysis of data was expected to reveal differences attributed to different intervention measures and types of support service provided. Additionally, gains from the first year which were comprised of fall-spring comparisons were compared with second year gains to determine whether the extraordinary successes of 1974-75 were maintained. Specific treatment of the data and a discussion of results will be found in a later section of this report.

DESCRIPTION OF PROGRAM CHANGES IN 1975-76

In 1975-76, increased emphasis was placed upon teacher support through informal and formal training, support of classroom activities, and coordination of efforts in all schools participating in the CSSP. Greater numbers of students were served in each school. Less support teacher time was expended in diagnostic testing and more time was devoted to program development, curriculum change, teacher contact and monitoring of established student programs.

The transitional years into junior and senior high school received additional attention in planning appropriate program changes for incoming students with special needs.

The T-S-T BOCES provided inservice training to support staff. One day each month was allocated for support teachers to hold inservice workshops in other schools, attend area training sessions, or observe innovative instructional methods in other schools. Each support teacher participated in these activities.

In addition to workshops and observations which presented the concepts and operation of the CSSP on a regional level, representatives of the program presented the CSSP as a model for providing services to children with special educational needs at the International Council for Exceptional Children.

The six school districts that participated in the CSSP in 1974-75 continued the following year. Descriptions of the support programs in the original six school district may be found in an earlier volume (Ashburn, 1975). Newfield School District participated in the CSSP in 1975-76, initiating a support program for grades K-6.

Newfield School District

The Newfield School District is comprised of the village of Newfield and surrounding rural areas. The school population is drawn from the village, area farms, and mobile home parks. Seventeen percent of the school population reside in mobile home parks.

A new school building completed in 1975 houses the student population of 620 which includes grades K-6. A staff of 29 serves this enrollment.

Support Services

A support team worked with all elementary grades but focused on grades K-3. Referrals were received by classroom teachers. The support team provided diagnostic testing and educational planning based on individual student needs. They were assisted by junior and senior high school students who worked as tutors in classrooms.

While 26 students were given services by the entire support team, 50 students (8% of the enrollment) received individual diagnostic and remedial services which required support by some team members. Informal requests were made by classroom teachers to initiate these referrals. In addition to these individual student services, classroom screening and classroom remediation efforts served other students.

Objectives

- Initiation of support team to become functional part of school
- Documentation of needs of students at transition from elementary to junior high school
- Screening of all incoming kindergarten students
- Diagnose specific learning needs of students referred to the support team

Plans for 1976-77

- Formal workshops for classroom teachers
- Expanded use of student tutors
- Classroom follow-up of students identified in '75-'76 as having special needs
- Fall-1976 effort at junior high school to assist in most effective program plans and placement of incoming 7th graders
- Additional efforts to increase language development and visual motor activities in kindergarten
- Program and curriculum changes based on team findings
- Small group classes based on screening results

Evaluation

The PIAT was administered to 14 students. Individual student progress was measured by numerous tests. Results were recorded and the findings reported in year-end reports. Reports were written for 50 students.

ANALYSIS OF DATA

INTRODUCTION

Caution is suggested when interpreting gains in any educational program which involves students in a school setting. Factors other than the compensatory treatment may contribute to the gains. Nonacademic influences from home, or community, or peers may cause significant changes in academic performances as discussed earlier in this report. This study made no attempt to measure gains in nonacademic areas even though extensive support team efforts were involved. Neither was an attempt made to predict future educational performances of the students.

In the interpretation of test scores, there is inherent danger in relying solely on grade equivalent gains since gains at one grade are not commensurate with gains at all grade levels. The potential error in interpreting grade level gains would be especially likely since this study includes scores from one year to another year. This possibility was lessened somewhat by the use of standard scores to compare the students posttest score with the score that he would have to make to maintain his standing relative to the norm group.

Standard scores were selected to measure growth since these scores are directly comparable from grade to grade. This enabled us to use scores as a measure of academic growth over a period of time and to compare scores across all grades. Students would have to gain commensurate with the national norm to maintain the same standard score at posttesting. Therefore, a significant increase over the standard score recorded for the pretest would indicate a gain attributable to the intervention.

There is no absolute criteria for determining whether gains are educationally significant. However, the most frequent assessment used applies a t-test of differences between observed scores and expected scores based on national normative data. If the result is less than or equal to .05 ($p \leq .05$), the educational program is said to have statistically significant gains. A recent study (Tallmadge, 1976) funded by the Office of Education suggested that a gain of one-third a standard deviation beyond expected posttest score would be educationally significant. By this measure the CSSP would be considered an exemplary compensatory program.

In addition to standard scores which reflect central tendencies, grade equivalent gains were studied at each grade to determine whether students who received support services recorded one month of gain for each month of support. It should be noted here however, that the population served is comprised of students who had never achieved at this rate prior to receiving service from the CSSP. The average achievement recorded by the CSSP in 1974-75 was greater than the national norm. Measures were taken to determine whether those highly significant gains were maintained a second year.

In 1975, comparisons were also made with expected posttest scores derived through an historical regression formula. Partly because the students served were identified by their historical nonperformance, the expected posttest gains were minimal. Students whose gains surpassed national norm gains obviously surpassed their own expected scores. For these reasons the historical regression formula was not used to determine posttest expected score. Instead, the more rigorous national norm rate was used.

In addition to these analyses using data derived from the PIAT, examination of results of three survey instruments yielded summary statistics reflecting assessment of the CSSP by school administrators, teachers, and parents.

SOURCES OF DATA

Four types of data were studied in this evaluation:

- Questionnaires completed by building principals relative to the success of the CSSP in meeting needs of students with special educational needs.
- Questionnaires completed by classroom teachers relative to services provided to them and to students in their classes by the CSSP.
- Interviews with parents of children who were recipients of service relative to observed changes in the children, contacts with the support program, and assessment of needs.
- The Peabody Individual Achievement Test administered and scored in accordance with the publisher's instruction.

ASSESSMENT BY SCHOOL ADMINISTRATORS

A questionnaire was designed for assessment of the support program by each building administrator. School administrators in 25 schools were surveyed to determine the strengths and deficits of the Comprehensive Support Services Program.

Twenty-four administrator questionnaires were returned. Composite responses to the questionnaire may be found in Appendix A.

Results of the questionnaire indicated that administrators viewed the program as having positive impact upon student and upon the schools. Fifty-eight percent of the responses assessed the support program as having an excellent impact upon the total school. Seventy-five percent assessed the impact upon students who received services as excellent.

Contacts with teachers and administrators were assessed as helpful or excellent by 96% of the responding administrators.

In an assessment of services provided, administrators were asked to rank provided services on a scale of 1-10. The diagnostic evaluation of referred students was cited as the most outstanding (9.1 mean rank on a 10. scale). The item receiving the second highest assessment was identification of learning problems through screening tests (8.4 mean rank by responding administrators). The items representing teacher contacts were assessed nearly as successful. Response to classroom teacher needs regarding specific students was ranked 8.3. Provision of resource materials and methods to teachers was rated 8.0. However, plans and supervision of classroom intervention was ranked 7.0. Support work outside the classroom was rated 7.3. Parent contact was rated 7.6 with great variance found among the reporting administrators. On this question, ranks ranged from n/a (not available), 1, and 2, to 9 and 10.

Nonacademic support areas were rated the lowest of the nine categories. Variance of ranks was less than on the parent contact items; however, ranks ranged from 2 to 10.

Administrators were asked to identify their school needs and to determine the success of the support program in meeting the needs. Fifty-two percent cited the program as having some value in satisfying the greatest areas of need; 48% cited the program as having great value in satisfying the

need. Areas of greatest need varied from school to school. However, three areas represented over one-half of the topics:

(1) Teacher and staff training – increasing skills of teachers in dealing with problems within the classroom.

(2) Identify, diagnose, and prescribe education alternatives for learning problems.

(3) Maintain the support program.

Similar responses were recorded for priorities for 1976-77:

(1) Provision of inservice support to teachers with new techniques, methods, inspiration to handle problems more effectively in the classroom.

(2) Financial support to continue program.

Administrators were asked to identify services which were ineffective or inadequate. Administrators cited the regional support meetings which left the building without a support teacher on a biweekly basis. Problems with team meetings or team process at the building level were also cited. Ten of the 24 administrators cited an area of inadequate service in 1975-76. However, problems apparently were unique to each school for there were no services consistently identified by the 10 administrators.

Conclusions to be drawn from these results are that the support program was assessed by school administrators as helpful or excellent in all aspects. Four services were rated as 8 or greater on a 1-10 scale:

(1) Identification of learning problems.

(2) Diagnostic evaluation of referred students.

(3) Response to classroom teacher needs regarding specific students.

(4) Provision of resource materials and methods to classroom teachers.

Three areas of need were cited by the school administrators. They were:

(1) Teacher and staff inservice training to work with problems in the classroom.

(2) Identification, diagnosis of problems and prescription of educational alternatives.

(3) Maintaining the support program.

Similarly, the continuation of the program was assessed as a top priority for 1976-77.

ASSESSMENT BY TEACHERS

In order to evaluate the impact of the CSSP as it affected the classroom, regular classroom teachers whose students received support were asked to respond to a questionnaire which related to specific areas in which assistance had been available.

The survey was limited to classroom teachers whose students had received support service from the CSSP. A questionnaire developed as part of the evaluation in 1974-75 was revised to

measure the success of the support program, to identify the types of services provided, to assess future needs of students, and to determine the extent to which the CSSP reached the objectives that affect classroom teachers.

The questionnaire was distributed to all elementary teachers whose students had received support services. In many schools, these teachers comprised the entire faculty. At the secondary schools, a greater number of teachers were involved since each student had 4-6 teachers. Therefore, teachers in each secondary school whose students received support services were identified by the school support teacher; of these teachers 50% were randomly selected to receive a questionnaire.

The questionnaires were distributed in each school by the support teacher. Teachers were asked to return the questionnaires (without signing them) to the Area Educational Services Center at BOCES. Seventy-six percent (203) questionnaires were returned. Each responding teacher was asked to report the number of students who received support services either directly from the CSSP or indirectly through the classroom teacher. The 203 teachers reported 919 students who received support. A summary of the responses may be found in Appendix B.

Results of the questionnaire indicated that the impact of the program affected student achievement as observed by classroom teachers. The service assessed as most helpful was in classsroom support; whereas, that service judged the least effective was parent or teacher meetings. Three types of services were strongly requested for next year: direct student support, teacher support in the classroom, and parental support.

As in 1974-75, teachers ranked the diagnosis of learning problems as the objective most successfully attained. The only objective ranked as successfully attained by fewer than 50% of the responding teachers was the provision of inservice training for teachers in classroom management, remediation, or classroom diagnosis of learning problems.

In response to a query relative to the area of observed student improvement, more responses (150) listed school achievement. Two other areas were frequently cited as areas of the most considerable assistance to students: self concept (110 responses) and learning ability (164).

From these results one may conclude that the support program was considered as having successful impact in student achievement. Identified areas for future emphasis are inservice training for teachers, continued student support, and parental support.

PARENT ASSESSMENT OF THE CSSP

In the past, the CSSP has been evaluated primarily on the academic gains made by students in the program. Though classroom teachers were surveyed to determine the extent to which they found the program to be successful, no attempts were made to ascertain the responses of parents. The purpose of the parent survey was to more fully evaluate the effects of the CSSP through the views of persons who could best assess out-of-school effects – the parents.

A random sample of parents were selected for interviews. Only parents who had had prior contact with the support program were considered for selection. Five hundred seventy parent names were submitted by support teachers. Of these, 10% (57) were randomly assigned to the interview sample through the use of random selection capabilities of a calculator. Each school was

weighted for the number of parent names submitted so that each school would be represented in the sample, and so that the sample would proportionately represent the population.

Parents were asked to respond to a number of questions which related to specific areas in which their child has received assistance. Ten topics were developed into questions:

(1) Kind of problems student has encountered in school.

(2) Area in which child needed support.

(3) Kind of support provided by CSSP.

(4) Identification of successful help provided by school.

(5) Deficiencies in child as observed by parent.

(6) Communication with parents by CSSP support (quality and quantity).

(7) Services needed for next year (1976-1977).

(8) Identification of area in which schools have been least successful in providing assistance.

(9) Suggestions for schools to better serve students with special educational needs.

(10) Suggestions for CSSP more effectively serving parents.

A total of 32 parents (56%) responded to the parent interview. The mean response for each topic was calculated. Results of that calculation may be found in Appendix C.

This limited return suggests that the results be viewed as representative of a small group of parents, not all parents. Caution should be exercised inferring that this represents the parents' view.

Results of the survey indicated that the overwhelming emphasis of parent responses cited communication with the home as either a deficit or an observed success. This may be considered a top parental priority identified in the survey.

Parent assessment of the support program was very positive. It was frequently noted as a major success. The 10 topics on the parent interview produced these general responses:

(1) Academic problems and social adjustment were most frequent kinds of problems cited.

(2) Areas in which children needed support included English, reading, social/emotional adjustment and "all subjects".

(3) No general description of support was identified by parents except checked responses equally divided into classroom and out-of-class support.

(4) "All they can," "Helped child in school" were typical of the general responses to this topic.

(5) Observed differences were improvements in nearly all areas.

(6) Contact was made by the school in 72% of the responses: by parents in 26% of the responses.

(7) Services needed for '76-'77 were continued support – support in classroom with teacher, reading help, writing.

(8) Area in which parents felt the schools had been least successful were reporting problems to parents. 36% of the responding parents said there were no areas in which the school had been unsuccessful. Others listed – discipline, handwriting and not mastering basic skills.

(9) Suggestions for improvements in work with special needs included maintaining a support program, more work with students and notification of parents when problems occur.

(10) Suggestions for the support program more effectively serving parents focused on home contacts. The strongest emphasis was on increased parent communication.

DATA GATHERED FROM THE PIATS

The Peabody Individual Achievement Test was administered to all students new to the Comprehensive Support Services Program in 1975-76. In addition, tests were also administered to students who received support services in 1974-75. These students received a third PIAT one year after the posttest administration in 1975. These results provided data representing achievement gains over a two year period. A total of 1158 students were administered PIATS. These included students in grades 1-12. Three subtests were administered to all students (word recognition, math and reading comprehension). In addition, more than 600 students also received the spelling subtest.

One exception should be noted in administration of the comprehension subtest. A student does not receive a comprehension test if his score on the word recognition test is below 19 since word recognition of this level is considered a prerequisite skill for comprehension in the format of the PIAT.

In addition to the gains measured in grade equivalent scores, standard scores were used since this measure offered a less biased comparison from one grade to another. Use of standard scores provided data for the statistical computations. These data allowed longitudinal comparisons of student gains as well as group gains across grade levels. However, standard scores did not allow cross subtest comparisons. Therefore, each subtest was examined separately. In no instance was a student's mean score of all subtests calculated as is commonly done in studies of this type.

Results of the PIATS administered in 1974-75 and 1975-76 provided data to answer these questions:

(1) Did students who received support services in '75-'76 show a gain as recorded by pre and posttests? Each achievement area (word recognition, comprehension, mathematics and spelling) was examined separately at each grade level and for each district. Pre and posttests were compared using both grade equivalent scores and standard scores.

(2) Remarkable gains were recorded for students receiving support services in 1974-75. Did students who made these gains maintain the gains over a second year? Students who continued support services for 2 years were retested and the gains compared.

(3) Did students at each grade significantly increase their scores when compared to national norm? Mean gains in each subtest and at each grade level were compared with the gains representing national norms.

(4) Were there specific interventions which correlated with exceptional gains or with each of gains? Four commonly used interventions were examined (Perceptional Skills Curriculum, Recipe for Reading, Glass Analysis Decoding and Corrective Reading Program). Gains recorded for students receiving each intervention were studied to determine the extent to which growth could be attributed to the four services.

(5) The Support program serves students directly through remedial and compensatory instructional services and indirectly through service to teachers – providing suggestions for class use, new instructional techniques or materials, or behavior management approaches. Gains were recorded for students which indicated whether they received direct or indirect services. Gains recorded for both types of support service were studied to determine whether one type was more successful than the other at certain grade levels or in certain tested achievement areas.

These questions were posed in this study. Each question will be discussed separately.

Pretest Mean Scores vs. Post Mean Scores

In accordance with the evaluation measures suggested by New York State Education in assessing 241 programs, the following statistical tests were conducted for each district: the mean pretest score in each grade was compared with the mean posttest score using a t-test for related means. Tables 1 through 7 show the results of these tests.

When the N is <10, confidence may not be placed in nonsignificant results. The possibility of a type II statistical error is so large that the test is of little value and data are presented here only for informational purposes.

The critical figures for study in instances where the N is 10 are the figures which reflect the gains–the pretest and posttest mean scores. Numerical differences between pretest and posttest scores document student gains. However, if the difference is not statistically significant or if the N is <10, one may not infer that the gains may have occurred as a result of the support program.

In each table, the level of significance was set at .05. Therefore, when results of t-tests produced levels of significance greater than .05, NS is recorded. When the level of significance is less than .05, the level of significance is recorded. It should be noted that .00 level of significance was recorded if the computer printout showed that figure even though one may assume that the level of significance was mathematically between .00 and .0009.

TABLE ONE: DRYDEN SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	11	2.36	2.91	−2.95	.015
1	15	1.17	1.79	−2.08	NS*
2	68	2.17	3.33	−7.52	.00
3	35	3.12	4.87	−8.31	.00
4	12	4.90	5.19	− .93	NS*
5	20	4.55	5.41	−2.92	.01

PIAT WORD RECOGNITION SUBTEST

Pre-grades	11	1.54	2.6	− 5.76	.00
1	15	1.15	1.9	− 2.37	.03
2	68	1.[illegible]	3.15	− 9.75	.00
3	35	2.46	3.44	−10.17	.00
4	12	3.05	3.85	− 3.52	.01
5	20	3.23	3.95	− 4.48	.00

PIAT COMPREHENSION SUBTEST

Pre-grades	5	2.84	3.70	−2.50	NS*
1	3	2.1	2.1	0.00	NS*
2	54	2.18	3.18	−6.81	.00
3	35	2.75	3.52	−7.79	.00
4	12	3.16	3.78	−2.68	.02
5	20	3.56	3.93	−1.22	NS*

As noted in Table 1, gains were recorded for all grades and all subtest with the exception of first grade where the mean comprehension remained the same. In most grades and on most subtests, the gains were statistically significant (when $p \leq .05$). It should be noted that the scores recorded for each grade level were below "grade level" and that such sustained gains for these students are most significant. In each instance, the gap representative of student deficit was made smaller.

*Not Significant

TABLE TWO: GROTON SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	4	.97	2.08	−2.69	NS*
1	14	1.21	2.15	−4.18	.00
2	5	2.02	2.58	−1.4	NS*
3	1	2.30	3.05	−1.36	NS*
4	1	no data available			
5	1	no data available			

PIAT WORD RECOGNITION SUBTEST

Pre-grades	5	.96	1.92	−2.86	.05
1	15	1.06	1.83	−4.99	.00
2	5	1.34	1.78	−2.44	NS*
3	2	1.70	2.65	− .90	NS*
4	1	no data available			
5	1	no data available			

PIAT COMPREHENSION SUBTEST

Pre-grades	not administered at this grade				
1	not administered at this grade				
2	4	1.95	2.33	−2.34	NS*
3	2	2.25	3.20	−1.00	NS*
4	1	no data available			

PIAT SPELLING SUBTEST

Pre-grades	not administered at this grade				
1	3	.86	1.53	−4.59	.04
2	2	1.35	1.40	− .14	NS*
3	no tests administered at this grade				
4	1	no data available			

As noted in an earlier report, the Groton support efforts are focused on the primary grades where early identification and prevention are emphasized. Table 2 shows the gains recorded for Groton students for 1975-76. In several instances high gains were recorded which were labeled "not significant". This may be attributed in some degree to the small number of students tested and also to the variance in student gains.

At all grades, posttest scores were numerically higher than pretest scores.

*Not Significant

TABLE THREE: LANSING SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	8	.83	1.26	−3.45	.01
1	19	1.08	1.42	−2.12	.05
2	3	2.43	3.30	−1.65	NS*
3	1	no data available			

PIAT WORD RECOGNITION SUBTEST

Pre-grades	8	.98	1.46	−3.96	.01
1	19	1.04	1.53	−5.59	.00
2	3	2.60	3.47	−2.64	NS*
3	1	no data available			

PIAT COMPREHENSION SUBTEST

Pre-grades	8	1.90	1.99	−1.	NS*
1	19	1.90	2.06	−2.40	.03
2	3	2.30	3.70	−1.47	NS*
3	1	no data available			

Gains were recorded at all grade levels though they were not always statistically significant gains.

*Not Significant

Newfield School District

This school district initiated its support program in 1975-76. Therefore, much effort was directed toward organization of the support team and development of a process for delivery of service.

TABLE FOUR: NEWFIELD SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	1	no data available			
1	1	no data available			
2	7	2.03	2.67	−3.50	.01
3	3	3.13	3.30	−0.82	NS*
4	1	no data available			
5	0				
6	1	no data available			

PIAT WORD RECOGNITION SUBTEST

Pre-grades	1	no data available			
1	1	no data available			
2	7	1.87	2.33	−7.47	.00
3	3	2.50	2.77	−1.51	NS*
4	1	no data available			
5	0				
6	1	no data available			

PIAT COMPREHENSION SUBTEST

Pre-grades	–	no subtests administered at this grade			
1	–	no subtests administered at this grade			
2	5	2.28	2.78	−1.68	NS*
3	3	2.60	3.17	−3.05	NS*
4	1	no data available			
5	–				
6	1	no data available			

*Not Significant

(continued)

TABLE FOUR (continued)

PIAT SPELLING SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	1	no data available			
1	1	no data available			
2	6	2.0	2.35	−0.61	NS*
3	3	3.17	3.67	−1.64	NS*
4	1	no data available			
5	–				
6	1	no data available			

Gains were recorded for each grade even though some were not significant gains. In instances where "no data available" was recorded, there was no information printed in the computer analysis even though records showed that students were tested at that grade level. Causes may have been data which was incomplete, posttests administered less than 5 months after the pretest or computer error. A second analysis did not identify the source.

*Not Significant

TABLE FIVE: TRUMANSBURG SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
1	25	1.24	1.24	−11.78	.00
2	4	2.67	3.50	− 4.48	.02
3	6	3.40	4.77	− 3.79	.01
4	15	3.41	4.93	− 9.23	.00

PIAT WORD RECOGNITION SUBTEST

1	28	1.14	1.81	−7.19	.00
2	4	1.93	2.93	−3.65	.03
3	6	3.30	3.98	−3.93	.01
4	15	3.43	3.95	−4.36	.00

PIAT COMPREHENSION SUBTEST

1	0	not administered this grade level			
2	2	2.25	2.50	−5.0	NS*
3	6	3.10	3.72	−2.06	NS*
4	15	3.45	3.94	−3.04	.01

PIAT SPELLING SUBTEST

1	27	.99	1.64	−10.14	.00
2	3	1.83	2.20	− .70	NS*
3	6	2.65	3.28	− 3.15	.03

Gains were recorded at each grade level and in each subtest. As shown in Table 5, exceptional gains were recorded in math and word recognition at all grade levels.

*Not Significant

TABLE SIX: SOUTH SENECA SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
1	12	.77	1.54	−3.72	.00
2	15	2.09	3.25	−7.27	.00
3	5	2.86	4.30	−2.70	.05
4	9	3.96	4.76	−3.63	.01
5	26	4.95	5.28	−1.18	NS*
6	1	no data available			
7	2	4.35	5.85	−1.0	NS*
8	1	no data available			

PIAT WORD RECOGNITION SUBTEST

1	12	.97	1.52	−5.56	.00
2	15	1.79	2.60	−7.23	.00
3	5	2.30	3.34	−2.46	NS*
4	9	3.51	4.00	−2.77	.02
5	26	4.03	4.60	−4.07	.00
6	1	no data available			
7	2	2.75	3.35	−6.0	NS*
8	1	no data available			

PIAT COMPREHENSION SUBTEST

1	1	no data available			
2	6	2.57	3.00	−1.33	NS*
3	3	2.67	3.30	−1.21	NS*
4	5	3.80	4.50	−1.51	NS*
5	26	4.00	4.69	−4.80	.00
6	—				
7	2	3.15	3.25	− .33	NS*
8	1	no data available			

Gains were recorded at all grade levels with the most statistically significant gains occurring in grades 1-4. It should be noted that the small numbers in some of the grades influenced the level of significance even though marked gains were recorded. Mean pretest scores at each grade were below grade level. At some grades they were 2-4 years below. With such a large gap between student achievement level and grade in school, the gains recorded may be considered especially significant.

*Not Significant

Ithaca City School District

Since this district is comprised of sixteen schools, gains are representative of performance district-wide. Table 7 shows the mean pretest and posttest scores at each grade.

TABLE SEVEN: ITHACA CITY SCHOOL DISTRICT

PIAT MATH SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	1	no data available			
1	90	1.29	2.16	−12.24	.00
2	107	2.33	3.18	−10.51	.00
3	101	3.33	4.34	− 9.33	.00
4	86	4.33	5.08	− 6.21	.00
5	98	5.00	6.37	− 8.41	.00
6	74	5.68	6.59	− 5.04	.00
7	92	6.07	6.84	− 3.91	.00
8	63	7.40	7.78	− 1.33	NS*
9	16	6.21	7.25	− 1.25	NS*
10-12	45	8.77	9.25	− 1.50	NS*

As noted in Table 7, significant differences exist between the pretest and posttest mean scores in grades 1-7. From these results, one can infer that the differences may have occurred as a result of the support services.

Following are tables showing the same comparisons between pretest and posttest scores in each school.

PIAT WORD RECOGNITION SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	1	no data available			
1	92	1.20	1.89	−11.01	.00
2	109	1.99	2.79	−12.73	.00
3	98	2.77	3.54	− 9.23	.00
4	87	3.53	4.43	− 9.39	.00
5	98	4.18	5.15	− 9.32	.00
6	75	4.46	5.32	− 8.46	.00
7	93	4.66	5.21	− 5.59	.00
8	63	5.82	6.65	− 6.08	.00
9	16	3.99	4.89	− 2.68	.00
10-12	45	6.55	7.80	− 6.22	.00

*Not Significant

(continued)

TABLE SEVEN (continued)

PIAT COMPREHENSION SUBTEST

Grade	N	Pretest Mean	Posttest Mean	t-Value	Level of Significance
Pre-grades	–				
1	8	2.33	3.46	–3.30	.01
2	67	2.53	3.34	–6.66	.00
3	86	2.94	3.80	–9.63	.00
4	84	3.57	4.48	–8.30	.00
5	94	4.46	5.53	–8.20	.00
6	75	4.48	5.55	–6.32	.00
7	93	5.01	5.76	–4.18	.00
8	63	6.23	7.25	–4.41	.00
9	16	4.58	4.97	–1.01	NS*
10-12	44	7.00	7.75	–3.16	.00

PIAT SPELLING SUBTEST

Pre-grades	1	no data available			
1	85	1.25	1.82	–9.87	.00
2	107	1.94	2.55	–9.91	.00
3	102	2.51	3.05	–7.47	.00
4	83	3.11	3.83	–5.15	.00
5	96	3.75	4.29	–3.88	.00
6	74	3.82	4.40	–6.11	.00
7	93	4.45	4.61	–1.01	NS*
8	63	5.33	5.64	–1.64	NS*
9	16	3.79	4.29	–1.92	NS*
10-12	45	5.47	6.07	–2.48	.02

The results in Table 7 show the gains recorded in Ithaca at each level. District gains were recorded at all levels; however, statistically significant gains were more frequently found in grades 8 and below.

The mean pretest scores in the higher grades were indicative of more severe academic deficits than recorded in the lower grades. One may speculate that younger children have not had as many years in which to fall behind their peers. Another possibility is that the three year old support program has reduced the numbers of students with severe deficits or has closed the gap between performance level and grade placement.

*Not Significant

Student Gains vs. Norm Gains Using Standard Scores

A more rigorous test of student gains employs standard scores which represent a student's score in relation to his peers. Standard scores range from 65 to 135 – with a mean of 100. In order for a student to maintain his standard score, he must maintain his standing with his grade group. This requires a different gain at different grade levels and is considered to be the most stringent measure of a compensatory education program.

A t-test of related means was employed to compare actual posttest standard scores with the posttest standard score reflecting norm gains. The level of significance was set at .05. Comparisons were made at each grade level and on each subtest. Results of these tests are shown in Tables 8, 9, 10, and 11.

TABLE EIGHT

Grade by Grade Analysis of Gain on PIAT Math Subtest Using Standard Scores

Grade	N	Mean Expected Score	Mean Actual Score	t-Value	Level of Significance
1	56	91.79	95.91	−3.87	.00
2	182	93.64	97.15	−3.85	.00
3	209	96.71	99.73	−4.82	.00
4	155	95.77	100.35	−6.31	.00
5	124	95.81	97.83	−2.98	.00
6	144	94.59	97.79	−3.73	.00
7	77	92.38	95.74	−3.04	.00
8	96	92.41	94.94	−2.81	.01
9	64	94.47	94.61	− .12	NS*
10-12	45	91.98	94.44	−1.74	NS*

As noted in Table 8, gains in standard scores were recorded for all grades. This means each grade gained more than the national norm rate of gain. Grades 1-8 gained significantly greater than the national norm (when $p \leq .05$) when t-tests were computed using actual posttest scores and expected posttest scores based on the national norm.

*Not Significant

TABLE Nine

Grade by Grade Analysis of Gains on PIAT Word Recognition Using Standard Scores

Grade	N	Mean Expected Score	Mean Actual Score	t-Value	Level of Significance
1	56	90.80	92.46	−1.35	NS*
2	183	91.99	94.13	−2.95	.00
3	211	91.92	95.78	−6.19	.00
4	155	89.97	93.22	−6.37	.00
5	125	89.58	92.28	−4.93	.00
6	144	87.91	90.43	−3.79	.00
7	78	85.88	88.94	−5.04	.00
8	97	83.35	84.64	−2.87	.00
9	64	86.86	88.97	−3.14	.00
10-12	45	82.02	86.82	−5.79	.00
ALL	1,158	89.06	91.85	2.79	.00

An examination of the data in Table 9 shows the significant gains recorded for all grade levels on the word recognition subtest.

*Not Significant

TABLE TEN

Grade by Grade Analysis of Gain on PIAT Comprehension Subtest Using Standard Scores

Grade	N	Mean Expected Score	Mean Actual Score	t-Value	Level of Significance
1	20	74.8	81.15	−2.5	.02
2	49	76.92	86.80	−4.19	.00
3	153	94.95	98.52	−5.05	.00
4	139	90.86	95.27	−6.71	.00
5	119	89.84	92.51	−3.80	.00
6	141	89.66	92.11	−3.03	.00
7	77	85.62	89.65	−4.60	.00
8	97	85.85	88.01	−2.24	.03
9	64	89.05	91.64	−2.60	.01
10–12	44	85.23	86.98	−1.46	NS*
ALL	903	88.73	92.27	−3.54	.00

The gains representing increased achievement in comprehension skills may be considered a strength in the Comprehensive Support Services Program. While many programs produce temporary gains in word recognition (primarily a memory skill involving recognition), few compensatory programs have been found to produce lasting gains in comprehension.

*Not Significant

TABLE ELEVEN

Grade by Grade Analysis of Gains on PIAT Spelling Subtest Using Standard Scores

Grade	N	Mean Expected Score	Mean Actual Score	t-Value	Level of Significance
1	18	92.5	94.5	−1.04	NS*
2	118	92.42	94.02	−1.91	NS*
3	118	91.44	91.79	− .4	NS*
4	111	88.06	89.01	−1.25	NS*
5	98	85.05	86.85	−1.28	NS*
6	96	84.16	84.61	− .42	NS*
7	74	79.93	82.12	− .26	.00
8	94	81.44	80.47	.88	NS*
9	63	82.92	83.25	− .33	NS*
10-12	45	75.82	76.91	− .97	NS*
ALL	835	85.93	86.81	.86	NS*

As shown in the preceding tables, significant gains were recorded on math, word recognition and comprehension subtests. While a numerical increase was recorded on the spelling subtests, it was not statistically significant. In fact, the only grade recording statistically significant gains in spelling was the 7th grade.

*Not Significant

COMPARISON OF GAINS BY SECOND YEAR STUDENTS

It has been a frequent claim that significant gains in compensatory education programs may be attributed to initial recovery of latent skills. Critics suggest that examinations of scores over a period of time may show that gains such as those recorded for the CSSP in 1974-75 are short lived. To examine the long range effect of the CSSP, scores of 427 students who received support from 1974 to 1976 were studied to determine whether their initial gains were maintained. As shown in Tables 12, 13, and 14, only in three instances were gains statistically different from year one to year two. In each case, the greater gain occurred in the second year. These tables depict the gains of the second year in a comparison with gains from the first year which were found to be significant increases.

TABLE TWELVE

Comparison of Year One and Year Two Gains

MATH

Grade	N	Gain Year One	Gain Year Two	t-Value	Level of Significance**
1	13	.80	.59	.28	NS*
2	59	.84	.85	.03	NS*
3	58	.71	1.06	−1.45	NS*
4	70	1.08	.70	1.72	NS*
5	45	.57	1.56	−3.13	.00**
6	65	.94	1.96	− .03	NS*
7	27	.98	.16	1.32	NS*
8	47	1.17	.99	.47	NS*
9	16	.41	.23	.24	NS*
10-12	17	data not available			

WORD RECOGNITION

1	13	.93	.29	.84	NS*
2	60	.59	1.12	−4.48	.00**
3	58	.76	.89	−1.08	NS*
4	71	.67	.88	−1.60	NS*
5	45	.64	1.08	−2.22	.03**
6	65	.94	.95	−0.03	NS*
7	27	.66	.70	−0.15	NS*
8	47	.51	.85	−1.46	NS*
9	16	.41	.23	.24	NS*
10-12	17	no data available			

*No significant difference found between year 1 and year 2 gains.
**Difference significant at $\alpha = .05$

TABLE TWELVE (continued)

COMPREHENSION

Grade	N	Gain Year One	Gain Year Two	t-Value	Level of Significance
1	14	.93	.29	.84	NS*
2	4	.62	.85	− .56	NS*
3	45	.66	.87	− .86	NS*
4	57	.69	1.00	−1.51	NS*
5	42	.75	1.14	−1.71	NS*
6	66	.80	.96	−0.98	NS*
7	26	.90	.66	.81	NS*
8	47	1.21	.91	.85	NS*
9	16	.56	.90	− .57	NS*
10-12	17	data not available			

*No significant difference found between year 1 and year 2 gains.
**Level of significance is greater than $\alpha = .05$ using a two-tailed t-test for related means.

SPELLING

1	4	15	.55	− .45	NS*
2	25	.50	.64	− .73	NS*
3	34	.48	.73	−1.36	NS*
4	39	.58	.45	.25	NS*
5	32	.39	.75	−1.15	NS*
6	44	.16	.83	−1.57	NS*
7	25	.56	.67	− .44	NS*
8	46	.49	.83	− .94	NS*
9	16	.14	.25	− .29	NS*
10-12	no data available				

*No significant difference found between year 1 and year 2 gains.
**Level of significance is greater than $\alpha = .05$ using a two-tailed t-test for related means.

As noted in Table 12, there were no available data for grades 10-12. However, it was noted that 17 students received services both years. A re-examination of the original data may provide scores for comparison.

A comparison of second year gains with national norm gains (which averaged .54 years) revealed that in the math subtest, all grades but seven and nine equalled or surpassed the norm gain. In word recognition, all grades except first and ninth equalled or surpassed the norm gain. In comprehension subtest analysis, all grades except first grade equalled or surpassed the norm gain. In spelling, all grades except first, fourth, and ninth equalled or surpassed the norm gain.

Several variables may have existed within this group such as intensity of support service, type of intervention measures, or achievement level of the students. However, the fact that the significant gains were maintained and that students continued to gain at the national norm rate suggest long range effectiveness of the Comprehensive Support Services Program.

ACTUAL GAINS COMPARED TO NORM GAINS

Student gains were compared to a nationally representative sample drawn from regular classrooms through the United States. This group of nearly 3,000 students provided data for the national norms published by the American Guidance Service, Inc., developers of the PIAT. These figures provide grade equivalent scores representing the average scores for each grade level based on the 3,000 students tested.

Since the students who received support services were identified by their academic deficits, it is considered an optimistic but reasonable goal for them to perform at the same rate as the national norm. In the 1974-75 study, students in the CSSP made gains significantly greater than the national norm. Grade equivalent gains were computed for each grade and on each subtest. The same comparisons were conducted using data derived from 1975-76 scores. Results are shown in Tables 13 through 16. It should be noted that students were tested upon entry into the program. If they were participants in 1974-75, the spring 1975 posttest served as a pretest. Such data avoided the possibility of producing artificially high gains derived from fall-spring test dates. Student gains spanned the summer months which frequently show actual decline in scores. Therefore, gains reported in this study may be considered to be gains sustained over holidays and summer vacations.

To determine whether gains recorded were different from the national norm gain rate (one month recorded gain for each month of support service), a *t* test for related means was computed using mean observed gain and the national norm expected gain for each grade level and each subtest. The results of the *t* tests are shown in tables. Gains were considered significant if they exceeded the national norm ($p < .05$).

TABLE THIRTEEN

National Norm vs. Actual Gains

PIAT MATH SUBTEST

Grade	N	Expected Gain	Actual Gain	t-Value	Level of Significance
Pre-grades	52	.68	.87	−2.26	.03
1	176	.56	.81	−3.88	.000
2	210	.55	.96	−5.79	.000
3	153	.56	1.18	−6.45	.000
4	125	.55	.82	−2.79	.01
5	145	.51	1.10	−4.35	.00
6	76	.53	.88	−1.96	.05
7	95	.55	.80	−1.30	NS*
8	63	.61	.37	.82	NS*
9	16	.45	.63	− .40	NS*
10-12	45	.62	.48	.44	NS*

TABLE FOURTEEN

National Norm vs. Actual Gains

PIAT WORD RECOGNITION SUBTEST

Grade	N	Expected Gain	Actual Gain	t-Value	Level of Significance
Pre-grades	56	.68	.69	.18	NS*
1	182	.56	.66	−1.76	NS*
2	212	.55	.96	−7.05	.00
3	154	.56	.81	−3.66	.00
4	126	.55	.82	−3.49	.00
5	145	.51	.86	−4.21	.00
6	77	.53	.90	−3.46	.00
7	96	.55	.59	− .41	NS*
8	63	.61	.86	−1.86	NS*
9	16	.45	.83	−1.29	NS*
10-12	45	.62	1.25	−3.10	.00

*Not significant

TABLE FIFTEEN

National Norm vs. Actual Gains

PIAT COMPREHENSION SUBTEST

Grade	N	Expected Gain	Actual Gain	t-Value	Level of Significance
Pre-grades	15	.67	.31	2.23	.05**
1	31	.55	.41	.89	NS
2	142	.53	.85	−3.71	.000
3	136	.55	.82	−3.69	.000
4	119	.54	.82	−3.03	.00
5	141	.51	.90	−3.68	.00
6	76	.53	1.09	−3.37	.00
7	96	.55	.71	− .87	NS
8	63	.61	1.01	−1.75	NS
9	16	.45	.34	.29	NS
10-12	44	62	.75	− .53	NS

*Significantly less than national norm

TABLE SIXTEEN

National Norm vs. Actual Gains

PIAT SPELLING SUBTEST

Grade	N	Expected Gain	Actual Gain	t-Value	Level of Significance
Pre-grades	18	.67	.67	1.0	—
1	116	.56	.60	− .59	NS*
2	118	.53	.58	− .71	NS*
3	110	.55	.55	− .08	NS*
4	99	.56	.66	− .88	NS*
5	96	.51	.55	− .28	NS*
6	74	.53	.56	− .39	NS*
7	94	.55	.10	2.29	.02*
8	62	.60	.31	1.51	NS*
9	16	.45	.49	− .16	NS*
10-12	45	.62	.60	− .10	NS*

*Not Significant

**Significantly less than norm gain

The gains were examined for each participating school district by comparing the mean observed gain with the national norm gain. Results of these comparisons are shown in Tables 17, 18, 19, 20, 21, 22, and 23. In each comparison the observed gains were considered significant if they exceeded the national norm gain when $p \leq .05$. As noted earlier, caution should be exercised in interpreting levels of significance if based on a small number of test scores. Of greater value is a comparison of the actual and norm gains.

TABLE SEVENTEEN

National Norm Gains vs. Actual Gains

DRYDEN SCHOOL DISTRICT

Test	N	Norm Gain	Actual Gain	t-Value	Level of Significance
Math	152	.55	1.22	−5.42	.00
Word Recognition	152	.55	1.04	−6.15	.00
Comprehension	125	.58	.77	−2.29	.02

TABLE EIGHTEEN

National Norm Gains vs. Actual Gains

GROTON SCHOOL DISTRICT

Test	N	Norm Gain	Actual Gain	t-Value	Level of Significance
Math	23	.48	.78	−1.69	NS*
Word Recognition	24	.49	.68	−1.32	NS*
Comprehension	8	.73	.54	.90	NS*
Spelling	5	1.00	.42	.99	NS*

These gains were not significantly different from national norm gains.

*Not Significant

TABLE NINETEEN

National Norm Gains vs. Actual Gains

ITHACA CITY SCHOOL DISTRICT

Test	N	Norm Gain	Actual Gain	t-Value	Level of Significance
Math	769	.54	.86	−5.80	.00
Word Recognition	778	.54	.82	−8.43	.00
Comprehension	626	.52	.91	−6.95	.00
Spelling	761	.54	.52	.53	NS*

TABLE TWENTY

National Norm Gains vs. Actual Gains

LANSING SCHOOL DISTRICT

Math	26	.68	.37	2.10	.05**
Word Recognition	26	.68	.56	1.27	NS*
Comprehension	23	.67	.33	2.10	.05**

**Actual gain was significantly less than norm gain.

TABLE TWENTY-ONE

National Norm Gains vs. Actual Gains

NEWFIELD SCHOOL DISTRICT

Math	13	.58	.52	.53	NS*
Word Recognition	13	.58	.50	.66	NS*
Comprehension	10	.57	.55	.10	NS*
Spelling	12	.62	.48	.46	NS*

*Not Significant

TABLE TWENTY-TWO

National Norm Gains vs. Actual Gains

TRUMANSBURG SCHOOL DISTRICT

Test	N	Norm Gain	Actual Gain	t-Value	Level of Significance
Math	50	.67	1.23	–6.04	.00
Word Recognition	53	.66	.65	.21	NS*
Comprehension	23	.62	.50	.89	NS*
Spelling	51	.69	.54	2.38	.02**

**Gain in spelling was significantly less than norm gain; whereas gain in math was significantly greater than norm gain.

TABLE TWENTY-THREE

National Norm Gains vs. Actual Gains

SOUTH SENECA SCHOOL DISTRICT

Test	N	Norm Gain	Actual Gain	t-Value	Level of Significance
Math	72	.62	.75	–.99	NS*
Word Recognition	72	.62	.69	–.92	NS*
Comprehension	44	.58	.63	–.48	NS*

*Not Significant

Even though gains observed in the South Seneca School District were not statistically significant, the mean gain in each subtest exceeded the national norm rate. It should be noted that the pretest scores in both South Seneca and Trumansburg indicated that these districts provided support to students who were well below grade level. Gains, while statistically insignificant, may not be interpreted as unremarkable as it is more difficult to record significant gains for students who have the most severe deficits when pretests are administered.

COMPARISON OF FOUR INTERVENTION MEASURES

Four intervention treatments were identified which have been considered unusually successful in developing skills in the academic areas tested: Recipe for Reading, Perceptual Skills Curriculum, Glass Analysis, and Corrective Reading Program.

Gains recorded (in standard scores) for students receiving each of these four services were studied to determine whether any specific treatment or a combination of treatments resulted in greater gains. Results of these comparisons are presented in Table 24. As noted, in the following table, there was no significant difference in math or spelling gains due to special program.

TABLE TWENTY-FOUR

Comparison of Mean Gains (Standard Score Gains)

Intervention	Math	Subtest Word Rec.	Comp.	Spelling
1. Recipe for Reading		2.39	4.05	.18
2. Perceptual Skills Curriculum	3.56	2.18	2.26	.08
1. and 2.	.33	8.67	−10.67	− .13
3. Glass Analysis Decoding	1.97	2.58	3.04	− .13
1. and 3.	1.18	1.27	3.16	.83
2. and 3.	1.90	1.03	6.26	2.23
1., 2., and 3.	−11.50	4.50	− 4.00	9.00
4. Corrective Reading Program	6.04	6.46	7.88	− .83
1. and 4.	− 2.29	−2.57	3.50	−7.75
2. and 4.	− 1.00	− .89	2.00	−3.57
3. and 4.	3.54	3.81	5.60	3.44
1., 3., and 4	6.00	5.14	13.71	4.43
1., 2., 3., and 4	3.00	−1.50	4.50	3.50
1., 2., 3., and 4	3.50	5.00	2.00	4.00
Mean SS Gain	3.00	2.87	3.45	.82

A one-way ANOVA was conducted to determine whether gains attributed to special intervention measures were significantly different from others. An F-ratio revealed no significant difference in gains in spelling or math. The F-ratios in word recognition ($F = 1.98$) and Comprehension (2.87) were significant at the .05 level.

As shown on Table 24, The Corrective Reading Program was the single program most associated with gains in word recognition and comprehension. The continuation of programs representing the most significant gains in these subtests were: Recipe for Reading, Glass Analysis, and Corrective Reading Program.

There was no single program which was found to have significantly lower gains with enough students to reach a conclusion that it was less effective. As in other comparisons of treatment effects, one should be cognizant of the possibility that the population may have produced results which are not generalizable, that is, there was no control over differences in students. These results do indicate, however, the programs bring about gains in student achievement too great to have occurred by chance and that specific programs or combinations did record gains for greater than the overall mean. However, the significant F ratio resulting from ANOVA's conducted in word recognition and comprehension allow one to infer that the differences in gains are too large to occur by chance and that programs may have affected pupils' gain in those two subtests.

COMPARISON OF TYPES OF SUPPORT SERVICE

Support services were promoted through two vehicles: (1) direct student support in and out of classroom setting utilizing a tutor, aide, or volunteer to work with the student individually or in small groups (3-6 pupils) and (2) indirect support services provided through an intermediary.

The standard score gains were first computed. They represented posttest – expected posttest scores. The mean gains were computed for each type of service, direct, indirect and combination of both. Gains of students receiving each type of service were compared using a t-test. At each grade level and on each subtest, comparisons were made between gains representing:

(1) direct vs. indirect service

(2) direct vs. combination

(3) indirect vs. combination

Results of these tests are summarized in Table 25.

Gains significantly better in one type service than another are identified by subtest. In instances where there are no subtests recorded, one may infer that there was no service appreciably more effective than the other.

TABLE TWENTY-FIVE

Comparison of Types of Service

Direct vs. Indirect vs. Combination

	DELIVERY OF SERVICE		
Grade	Direct	Indirect	Combination
Pre-grades	Math		
1	Math		
2		Spelling	
3	Word Recognition		
4	Word Recognition		Math
5			
6		Comprehension	
7		Comprehension	
8			
9			
10-12	insufficient number of cases for comparison		

Only in isolated instances did the type of service make a significant difference in gains. As shown in Table 25, these instances occurred so infrequently as to suggest a coincidental relationship. Therefore, one may not infer that type of service affected gains. In fact, one may infer that services provided through work with classroom teachers is equally effective to support work entailing direct student tutorial assistance.

However, these groups were not matched nor randomly assigned to receive a type of service, so one may not safely generalize that type of service is immaterial in all compensatory programs.

CONCLUSIONS

and

RECOMMENDATIONS

CONCLUSIONS

The Comprehensive Support Services Program is an operational process in seven school districts in New York which identifies, evaluates, and provides supplemental educational support for students with special educational needs. Students (grades 1-12) receiving these services were examined before receiving support and at the end of the school year, 1976. The evaluation measures were four subtests of the Peabody Individual Achievement Test: math, word recognition, comprehension, and spelling. Pretest/posttest results indicated that:

(1) Significant gains were recorded on three subtests (math, word recognition, and comprehension) when the posttest score was compared to the score necessary to maintain the same position in distribution of scores. Gains were significant beyond the .01 level of confidence. Grades 1-8 recorded significant gains in math, grades 2-12 recorded statistically significant gains in word recognition. Grades 1-9 recorded statistically significant gains in comprehension. Grade 7 recorded significant gains in spelling.

(2) Gains recorded for pupils in the program a second year were not significantly different from the first year gains of 727 students who received support for two years; significant differences in second year gains were recorded for only fifth grade (math and word recognition subtests) and second grade (word recognition). In each instance the greater gain was in the second year. Thus, one may assume that the significant gains achieved in the initial year are maintained.

(3) School administrators, classroom teachers and parents assessed the program as having a positive impact. Specific requests for support found in survey instruments were:

   a. Expanded teacher training/classroom support

   b. Consistent followup support for students identified as having special needs

   c. Close communication with parents

(4) National norm gains were exceeded on the math subtest in pre-grades through grade 6. In the word recognition, norm gains were exceeded in grades 2-6 and in senior high school. In comprehension, gains exceeded the national norm gains in grades 2-6. There were no grades which significantly exceeded the national norm gain on the spelling subtest.

(5) Four programs which were considered to affect gains were studied. No significant gains were attributed special programs in math or spelling. In word recognition, greatest gains were made by students receiving the Corrective Reading Program, a combination of Recipe for Reading, Glass Analysis Decoding Kit, and Corrective Reading Program, and a combination of all four programs.

The most significant gains in comprehension were recorded by students receiving the Corrective Reading Program, Recipe for Reading, or the following combinations:

a. Perceptual Skills Curriculum & Glass Analysis

b. Glass Analysis and Corrective Reading Program

c. Recipe for Reading, Glass Analysis and Corrective Reading

d. Perceptual Skills Curriculum, Glass Analysis, and Corrective Reading Program.

(6) Support services were provided directly to student and indirectly through the classroom teacher. No significant differences in gains were found when student performances attributed to the two types of service were compared. The isolated incidences where one service resulted in higher gains occurred so infrequently as to suggest a coincidental relationship.

From the results of this study, one may conclude that the Comprehensive Support Services Program is an effective model to serve students with special needs. Administrators, classroom teachers, and parents assessed it as having a positive impact in student achievement. Tests of student performance documented academic gains which were significantly greater than the national norm though the student participants were originally identified by their academic deficits.

RECOMMENDATIONS

(1) Consistent screening to identify student with learning problems and followup to ensure those children are served.

(2) Educational plan prepared for each student whose scores on screening reflect a special education need. Plan to include:

a. identification of special needs

b. classroom support plans

c. out-of-classroom support plans

d. documentation of support effort indicated by b or c.

(3) Consideration given special emphasis for pre-grades, kindergarten and first to ensure that children are given adequate time to master preliminary skills at their individual learning rates before progressing to grades with greater academic demands and lessened opportunities for developing primary skills.

(4) Increased focus on teacher training providing inservice workshops in classroom support, diagnosis of learning problems, selection of special instructional materials and techniques.

(5) Focus upon increased communication with parents may include frequent notes or telephone calls, formal workshops, or informal suggestions for parents.

(6) The examination of several intervention measures documented significant gains attributed to several specific measures. While it may be assumed that student differences influenced these gains to a degree, it is suggested that further study examine these efforts more closely. A continued examination of gains in 1976-77 should determine whether the programs cited in this study do indeed show unusual promise.

(7) The success of this model in providing indirect support in regular classrooms has been documented. This suggests replication by other schools seeking to serve pupils with special educational needs. Statewide dissemination is recommended to offer this model as an example of an effective method for serving these students.

APPENDICES

APPENDIX A

ADMINISTRATOR QUESTIONNAIRE

In evaluating the Tompkins-Seneca-Tioga Comprehensive Support Services Program, we are soliciting the assessments of parents, teachers and school administrators. These comments and suggestions will serve two purposes: (1) to evaluate the success of the program in meeting the needs of pupils with special educational needs, and (2) to plan program changes which reflect the evaluations and which enhance program effectiveness.

Your support and leadership in the Comprehensive Support Services Program is recognized as a key factor in its success. Please read this questionnaire and respond from your viewpoint as an administrator. Your responses will enable us to develop improved services to students, teachers and school administrators.

Please place a check in the category that describes your answer.

1. In examining the impact upon the total school, I feel the support program is:

		4%	37%	58%
harmful	*not good*	*minimal value*	*helpful*	*excellent*

2. In examining the impact upon students who received support, I feel the support program is:

			25%	75%
harmful	*not good*	*minimal value*	*helpful*	*excellent*

3. In examining contact with classroom teachers, guidance and administrators, I feel the support program is:

		4%	46%	50%
harmful	*not good*	*minimal value*	*helpful*	*excellent*

4. Community support in my school for this program has been:

	8%	54%	37.5%
negative	*no responses noted*	*positive support*	*very positive support*

5. On a scale of 1 – very minimal to 10 – outstanding, rank the following services which may have been provided in your school. If the service was not provided, mark N/A.

mean response

8.4% Identification of learning problems through screening tests, etc.
9.13% Diagnostic evaluation of referred students.
7.3% Direct student support outside the classroom.
7.0% Plans and supervision of classroom intervention.
7.75% Parent contacts.
6.65% Non-academic support areas.
8.3% Response to classroom teacher needs re: specific students.
8% Provision of resource materials and methodology to classroom teachers.
7.32% Curriculum and program planning effecting entire groups or classes.

Appendix A – Administrator Questionnaire (continued)

6. The greatest area of need in my school is *inspiration – stimulation of teachers toward extra efforts. Resources outside school (neurologists, etc.)*

7. The support program worked to satisfy this need:

not at all	little value	some value	great value
		52%	*48%*

8. For 1976-77, I see the following topics as high priorities for support program work:

   1. Handle learning problems within the classroom

   2. Provide teachers with new ideas, hopes, techniques

9. The support services which I felt were ineffective or inadequate in 1975-76 are:

   Service: *in-house support services at BOCES*

   Reason for inadequacy (if known) *no follow through since staff could not be in school to maintain contacts*

Your efforts to complete this questionnaire are appreciated. The information will be used to revise and improve support services in subsequent years. Thank you for your assistance.

PEP scores increased. Support program was one reason.

APPENDIX B

TEACHER QUESTIONNAIRE

To improve the services provided by the Comprehensive Support Services Program, we need your assessment of services you have received this year as well as suggestions to improve services for next year. Please place a check in the category that represents your evaluation of the services you have received or that have been received by students.

I. Evaluate the success of the support program in each of the following statements.

1. The student/s involved with the support program demonstrated academic improvement.

strongly disagree	disagree	undecided	agree	strongly agree
		5%	65%	30%

2. The student has shown evidence of increased positive self-concept.

strongly disagree	disagree	undecided	agree	strongly agree
		14%	65%	21%

3. The student/s should continue to receive services next year.

strongly disagree	disagree	undecided	agree	strongly agree
		5%	44%	50%

4. The student would have been able to achieve success without intervention by the support team.

strongly disagree	disagree	undecided	agree	strongly agree
13%	47%	29%	10%	1%

II. Type of services (Evaluate the success of each service with which you had direct contact).

1. In-classroom support through suggestions of methods, techniques or additional knowledge about the student's special needs.

detrimental	no value	minimal	helpful	very helpful
	4%	5%	54%	37%

2. Resource room or other out-of-classroom support

detrimental	no value	minimal	helpful	very helpful
	1%	14%	50%	34%

3. Indirect support through parent or teacher meetings.

detrimental	no value	minimal	helpful	very helpful
	4%	26%	52%	19%

III. Which type of service do you see as most important if the student is to have maximum opportunity for success next year?

1. Direct support through resource room 34%
   (Identify the area of support: reading 62% math 32% other class 6%

Appendix B – Teacher Questionnaire (continued)

2. Classroom teacher support in regular classroom 29%
3. Parental support 24%
4. Vocational or career development (grades 7-12) 4%
5. Personal counseling and guidance 9%

IV. The overall objectives are listed below. Bearing in mind that these are goals and may not be attainable, please rate the program on its success in meeting these objectives:

1. Diagnosing and evaluating children's learning problems

very successful	successful	undecided	not very successful	not successful
40%	49%	9%	2%	

2. Helping students remain in regular classes

very successful	successful	undecided	not very successful	not successful
17%	63%	14%	4%	1%

3. Referring students to appropriate special educational resources (out of school) if necessary

very successful	successful	undecided	not very successful	not successful
16%	41%	35%	7%	1%

4. Providing inservice training for teachers in classroom management, remediation, classroom diagnosis of learning difficulties, etc.

very successful	successful	undecided	not very successful	not successful
8%	41%	27%	14%	10%

5. Providing special remedial materials, audio/visual or other resources to classroom teachers

very successful	successful	undecided	not very successful	not successful
25%	45%	14%	11%	4%

6. Providing special instruction (direct student instruction) to remediate the student's area of deficit

very successful	successful	undecided	not very successful	not successful
22%	45%	25%	3.5%	4.5%

V. If you feel the student with whom you work has been helped by the program, please indicate the areas in which you feel he has been helped the most. **

self concept	110	social adjustment	70
emotional control	54	learning ability	104
home adjustment	4	other (specify)	
school achievement (specify areas)	150		

VI. Your comments will be appreciated as well as any suggestions or requests you may offer for future years. Thank you for the effort and time you took to complete this questionnaire. Your responses will be helpful in improving services to students and to teachers.

**Raw numbers are given here rather than % since many teachers checked more than one.

APPENDIX C

PARENT INTERVIEW

This interview format is a guide that will help us evaluate parent response to the support program. Please use this as a tool – rewording or adjusting it to best fit a conversation with your students' parent.

1. What kinds of problems has your child encountered since he began school?
   Attendance – 6% *Spelling – 12%* *Reading – 35%*
   Attention Span – 6% *Math – 21%* *Social Adjustment – 15%*

2. Which areas did your child need help from the school staff? (open ended but tally the areas mentioned)
   academic areas–35% *behavior–15%* *social/emotional–15%* *Reading–35%* *Other (_____)*

3. Is your child receiving special help now? *98* If so, does he receive special help outside class? *70* Does the support teacher work with the classroom teacher? *99*

4. What has the school done to help your child?
   all they can–30% *very pleased–12.3%* *no response–28%* *cooperated with home–12%*
   kept track of child's problem–6%

5. What differences have you observed in your child?
   Attendance at school
   worse _____ *no change* 27% *better* 21% *much better* 21% *no resp.* 31%
   Attitude toward school
   worse _____ *no change* 21% *better* 30% *much better* 27% *no resp.* 22%
   Attitude toward self
   worse 6% *no change* 12% *better* 36% *much better* 33% *no resp.* 13%
   Relationship with others
   worse _____ *no change* 28% *better* 32% *much better* 40% *no resp.* ____
   Attitude toward homework
   worse _____ *no change* 35% *better* 50% *much better* 15% *no resp.* ____

6. Did the parent initiate contact with the support program? *26%* If so, what response did you receive from the support program staff? (or support teacher)
   School initiated contact – 72%
   Excellent response – 26% (obviously parent responses only answered)

7. In planning for next year, what services will help your child the most?
   1. *more of the same (15%)* 2. *support classrooms (15%)* 3. *reading instruction (15%)*
   4. *small group work (7%)* 5. *personal counseling (7%)* 6. *A BOCES Plan in the school next yr (7%)*
   7. *other (34%)*

8. What areas do you feel the schools have been least successful in helping your child? (open ended)

None – 36% *Very pleased – 12%* *Firm discipline – 6%*
Reporting problems to parents – 12% *Not mastering basics – 6%*
Handwriting – 12% *Other 16%*

9. Can you suggest ways in which the school can better serve children who encounter difficulties in school?

None – 36% *Involve students more in school activities – 12%*
Help with problems early – 18% *Notify parent – 12%* *Smaller classes – 12%*

10. Can you suggest ways in which our program can more effectively serve parents whose children receive support?

Home communication – 56% *More notes home – 20%*
More tutors needed – 12% *Work with parents – 12%*

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